

AMENDMENTS TO THE CLAIMS

1. (original) A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C.

2. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 30°C.

3. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having [wherein the polymeric additive has] a glass transition temperature less than or equal to 25°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C.

4. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and [wherein the polymeric additive has] a Young's modulus less than or equal to 100 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C.

5. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive is selected from the group consisting of poly(alkenyl hydrocarbon)s, poly(alkyl (meth)acrylate)s, poly(vinyl ester)s, polysiloxanes, and combinations comprising at least one of the foregoing polymeric additives.

6. (original) The curable composition of Claim 1, wherein the polymeric additive comprises a poly(alkenyl hydrocarbon).

7. (currently amended) [The composition of Claim 6,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

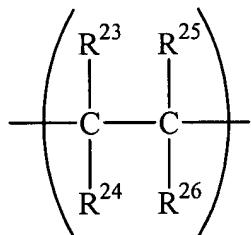
a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(alkenyl hydrocarbon);

and

wherein the poly(alkenyl hydrocarbon) comprises at least about 80 weight percent of repeating structural units having the formula



wherein R²³-R²⁶ are each independently hydrogen, C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₆-C₁₈ aryl, C₇-C₁₈ aralkyl, or C₇-C₁₈ alkylaryl.

8. (currently amended) [The composition of Claim 7,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

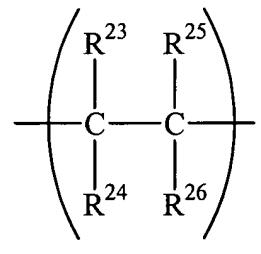
an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive comprises a poly(alkenyl hydrocarbon);

wherein the poly(alkenyl hydrocarbon) comprises at least about 80 weight percent of repeating structural units having the formula



wherein R²³-R²⁶ are each independently hydrogen, C₁-C₁₂ alkyl, or C₂-C₁₂ alkenyl.

9. (original) [The composition of Claim 6.] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(alkenyl hydrocarbon);

and

wherein the poly(alkenyl hydrocarbon) is selected from the group consisting of polybutadiene; polyethylene; polypropylene; polybutene; poly(4-methyl-1-pentene); a block copolymer comprising a first block that is the polymerization product of styrene and/or alpha-methyl styrene and a second block that is the hydrogenated polymerization product of butadiene and/or isoprene; and combinations comprising at least one of the foregoing [polyolefins] poly(alkenyl hydrocarbon)s.

10. (currently amended) [The composition of Claim 6,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(alkenyl hydrocarbon);

and

wherein the poly(alkenyl hydrocarbon) is selected from the group consisting of polyethylenes, polypropylenes, poly(4-methyl-1-pentene)s, polybutadienes, carboxy-terminated butadienes, carboxy-terminated butadieneacrylonitrile copolymers, polyisobutenes, polyisoprenes, ethylene-propylene copolymers, ethylene-propylene-diene terpolymers, styrene- butadiene copolymers, styrene-isoprene copolymers, isobutylene-isoprene copolymers, butadiene-isoprene copolymers, and combinations comprising at least one of the foregoing [polyolefins] poly(alkenyl hydrocarbon)s.

11. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive comprises a poly(alkyl (meth)acrylate).

12. (currently amended) [The composition of Claim 11,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

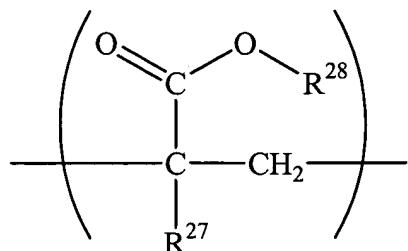
a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(alkyl (meth)acrylate);

and

wherein the poly(alkyl (meth)acrylate) comprises at least 80 weight percent of repeating structural units having the formula



wherein each R²⁷ is independently hydrogen or methyl, and each R²⁸ is independently C₁-C₁₂ alkyl.

13. (currently amended) [The composition of Claim 12, wherein] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

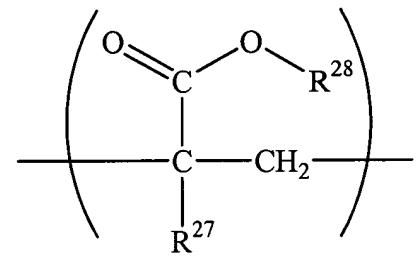
a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(alkyl (meth)acrylate);

and

wherein the poly(alkyl (meth)acrylate) comprises at least 80 weight percent of repeating structural units having the formula



wherein each R²⁷ is independently hydrogen or methyl, and each R²⁸ is C₁-C₆ alkyl.

14. (currently amended) [The composition of Claim 11,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(alkyl (meth)acrylate);

and

wherein the poly(alkyl (meth)acrylate) is selected from the group consisting of poly(butyl acrylate), poly(2-hexyl acrylate), and combinations comprising at least one of the foregoing poly(alkyl (meth)acrylate)s.

15. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive comprises a poly(vinyl ester).

16. (currently amended) [The composition of Claim 15,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

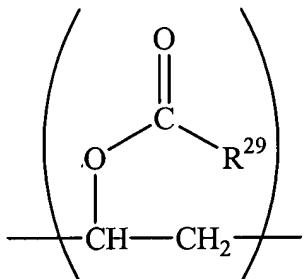
an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(vinyl ester); and

wherein the poly(vinyl ester) comprises at least 80 weight percent of repeating structural units having the formula



wherein each R²⁹ is independently C₁-C₁₈ alkyl, C₂-C₁₈ alkenyl, C₂-C₁₈ alkynyl, C₆-C₁₈ aryl, C₇-C₁₈ alkylaryl, or C₇-C₁₈ aralkyl, wherein each of the foregoing groups may, optionally, be substituted with one or more substituents [including] selected from epoxy, hydroxy, amino, and carboxyl[, and the like].

17. (currently amended) [The composition of Claim 16,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

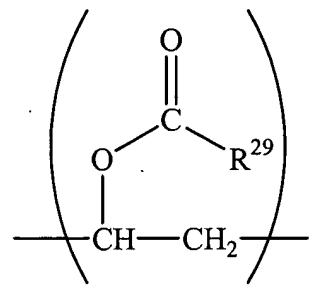
an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(vinyl ester);

wherein the poly(vinyl ester) comprises at least 80 weight percent of repeating structural units having the formula



wherein each R²⁹ is independently C₁-C₁₈ alkyl, which may, optionally, be substituted with one or more substituents selected from epoxy, hydroxy, amino, and carboxyl.

18. (currently amended) [The composition of Claim 15,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a poly(vinyl ester); and

wherein the poly(vinyl ester) comprises a poly(vinyl acetate).

19. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive is a copolymer comprising at least about 80 weight percent of the polymerization product of at least a first monomer type and a second monomer type, wherein the first monomer type and the second monomer type are different and independently selected from the group consisting of alkenyl hydrocarbons, alkyl (meth)acrylates, vinyl alkanoates, and nitriles.

20. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive is a copolymer selected from the group consisting of poly(butadiene-*co*-acrylonitrile), carboxy-terminated poly(butadiene-*co*-acrylonitrile), and combinations comprising at least one of the foregoing copolymers.

21. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive comprises a butadiene-acrylonitrile copolymer, a polychloroprene butadiene-styrene copolymer, or a combination thereof.

22. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive is a copolymer selected from the group consisting of ethylene-vinyl acetate copolymers, ethylene-ethyl acrylate copolymers, acrylonitrile-butadiene copolymers, methyl methacrylate-butadiene-styrene terpolymers, ethylacrylate-acrylonitrile copolymers, maleic anhydride-grafted polybutadienes, vinyl chloride-vinyl acetate-acrylic acid terpolymers, ethylene-vinyl acetate-acrylic acid terpolymers, and combinations comprising at least one of the foregoing copolymers.

23. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the polymeric additive comprises a polysiloxane.

24. (currently amended) [The composition of Claim 23,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

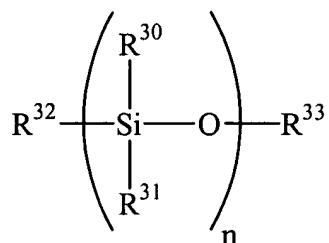
an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a polysiloxane; and

wherein the polysiloxane has the formula



wherein R³⁰-R³³ are each independently hydrogen, hydroxy, C₁-C₁₂ alkyl, C₁-C₁₂ alkoxy, C₂-C₁₂ alkenyl, C₂-C₁₂ alkynyl, C₆-C₁₈ aryl, C₇-C₁₈ alkylaryl, and C₇-C₁₈ aralkyl, wherein each of the foregoing groups may, optionally, be substituted with one or more substituents selected from the group consisting of epoxy, hydroxy, cyano, amido, amino, and carboxyl; and n is about 3 to about 10,000.

25. (currently amended) [The composition of Claim 24,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

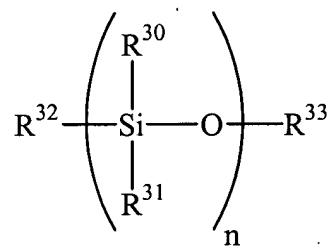
an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a polysiloxane;

wherein the polysiloxane has the formula



wherein [R³⁰-R³⁷] R³⁰-R³³ are each independently C₁-C₁₂ alkyl or C₂-C₁₂ alkenyl, wherein each of the foregoing groups may, optionally, be substituted with one or more substituents selected from the group consisting of epoxy, hydroxy, cyano, amido, amino, and carboxyl; and n is about 3 to about 10,000.

26. (currently amended) [The composition of Claim 23,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C;

wherein the polymeric additive comprises a polysiloxane; and

wherein the polysiloxane is selected from the group consisting of methyl silicones with phenyl and vinyl groups, and combinations comprising at least one of the foregoing polysiloxanes.

27. (currently amended) [The curable composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

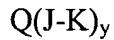
an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

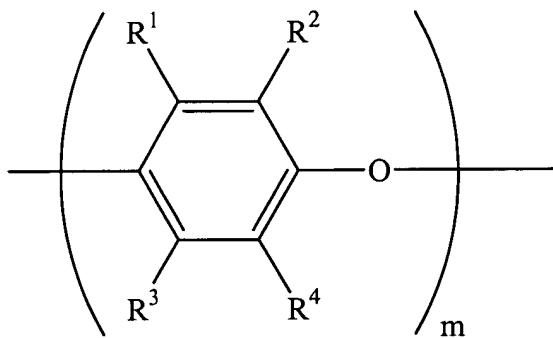
wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

comprising about 0.1 to about 30 parts by weight of the polymeric additive, based on 100 parts by weight total of the functionalized poly(arylene ether), the alkenyl aromatic monomer, the acryloyl monomer, and the polymeric additive.

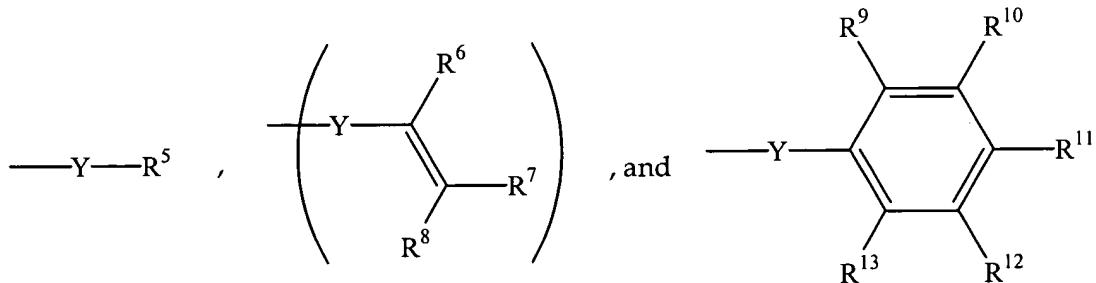
28. (original) The composition of Claim 1, wherein the functionalized poly(arylene ether) is a capped poly(arylene ether) having the structure



wherein Q is the residuum of a monohydric, dihydric, or polyhydric phenol; y is 1 to 100; J comprises repeating structural units having the formula

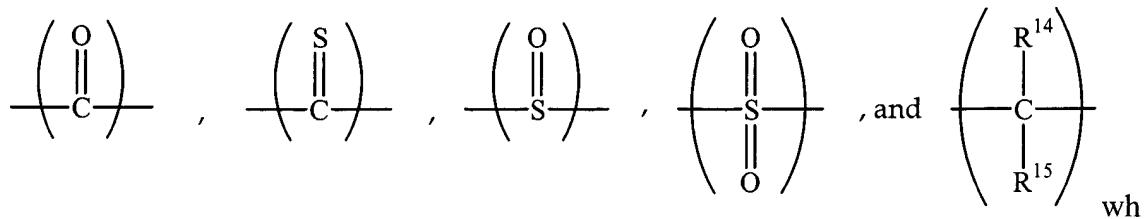


wherein R¹-R⁴ are each independently selected from the group consisting of hydrogen, halogen, primary or secondary C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₂-C₁₂ alkynyl, C₁-C₁₂ aminoalkyl, C₁-C₁₂ hydroxyalkyl, phenyl, C₁-C₁₂ haloalkyl, C₁-C₁₂ hydrocarbonoxy, and C₂-C₁₂ halohydrocarbonoxy wherein at least two carbon atoms separate the halogen and oxygen atoms; m is 1 to about 200; and K is a capping group selected from the group consisting of



wherein R⁵ is C₁-C₁₂ alkyl; R⁶-R⁸ are each independently selected from the group consisting of hydrogen, C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₆-C₁₈ aryl, C₇-C₁₈ alkyl-substituted aryl, C₇-C₁₈ aryl-substituted alkyl, C₂-C₁₂ alkoxy carbonyl, C₇-C₁₈ aryloxy carbonyl, C₈-C₁₈ alkyl-substituted aryloxy carbonyl, C₈-C₁₈ aryl-substituted alkoxy carbonyl, nitrile, formyl, carboxylate, imide, and thiocarboxylate; R⁹-R¹³ are each independently selected

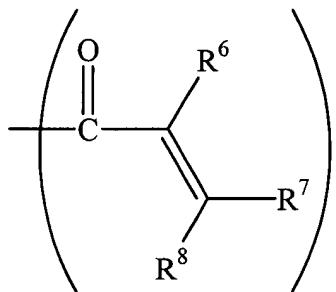
from the group consisting of hydrogen, halogen, C₁-C₁₂ alkyl, hydroxy, and amino; and wherein Y is a divalent group selected from the group consisting of



wherein R¹⁴ and R¹⁵ are each independently selected from the group consisting of hydrogen and C₁-C₁₂ alkyl.

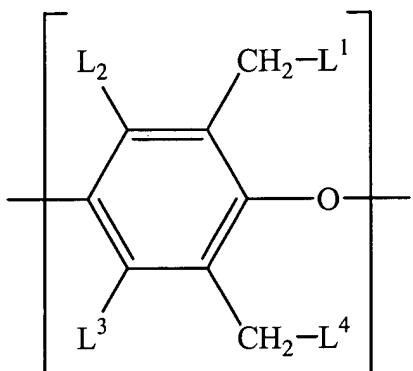
29. (original) The composition of Claim 28, wherein Q is the residuum of a monohydric phenol.

30. (original) The composition of Claim 28, wherein the capped poly(arylene ether) comprises at least one capping group having the structure

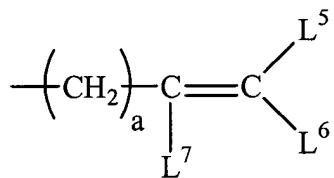


wherein R⁶-R⁸ are each independently selected from the group consisting of hydrogen, C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₆-C₁₈ aryl, C₇-C₁₈ alkyl-substituted aryl, C₇-C₁₈ aryl-substituted alkyl, C₂-C₁₂ alkoxy carbonyl, C₇-C₁₈ aryloxy carbonyl, C₈-C₁₈ alkyl-substituted aryloxy carbonyl, C₈-C₁₈ aryl-substituted alkoxy carbonyl, nitrile, formyl, carboxylate, imidate, and thiocarboxylate.

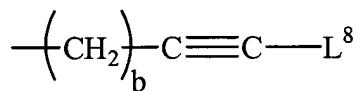
31. (original) The composition of Claim 1, wherein the functionalized poly(arylene ether) is a ring-functionalized poly(arylene ether) comprising repeating structural units having the formula



wherein each $\text{L}^1\text{-}\text{L}^4$ is independently hydrogen, an alkenyl group, or an alkynyl group; wherein the alkenyl group is represented by



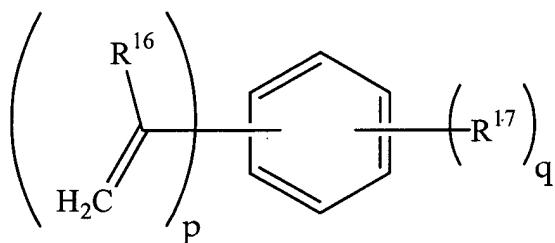
wherein $\text{L}^5\text{-}\text{L}^7$ are independently hydrogen or methyl, and a is an integer from 1 to 4; wherein the alkynyl group is represented by



wherein L^8 is hydrogen, methyl, or ethyl, and b is an integer from 1 to 4; and wherein about 0.02 mole percent to about 25 mole percent of the total $\text{L}^1\text{-}\text{L}^4$ substituents in the ring-functionalized poly(arylene ether) are alkenyl and/or alkynyl groups.

32. (original) The composition of Claim 1, comprising about 10 to about 90 parts by weight of the functionalized poly(arylene ether) per 100 parts by weight total of the functionalized poly(arylene ether), the alkenyl aromatic monomer, the acryloyl monomer, and the polymeric additive.

33. (original) The composition of Claim 1, wherein the alkenyl aromatic monomer has the structure

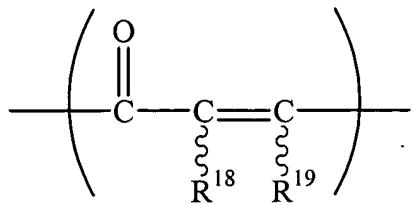


wherein each R¹⁶ is independently selected from the group consisting of hydrogen, C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₂-C₁₂ alkynyl, and C₆-C₁₈ aryl; each R¹⁷ is independently selected from the group consisting of halogen, C₁-C₁₂ alkyl, C₁-C₁₂ alkoxy, and C₆-C₁₈ aryl; p is 1 to 4; and q is 0 to 5.

34. (original) The composition of Claim 1, wherein the alkenyl aromatic monomer comprises at least one alkenyl aromatic monomer selected from the group consisting of styrene, alpha-methylstyrene, 2-methylstyrene, 3-methylstyrene, 4-methylstyrene, 2-t-butylstyrene, 3-t-butylstyrene, 4-t-butylstyrene, 1,3-divinylbenzene, 1,4-divinylbenzene, 1,3-diisopropenylbenzene, 1,4-diisopropenylbenzene, styrenes having from 1 to 5 halogen substituents on the aromatic ring, and mixtures comprising at least one of the foregoing alkenyl aromatic monomers.

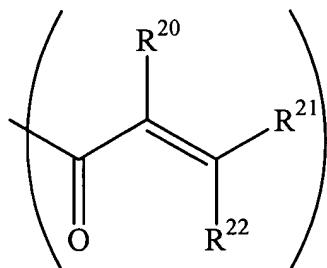
35. (original) The composition of Claim 1, comprising about 10 to about 90 parts by weight of the alkenyl aromatic monomer per 100 parts by weight total of the functionalized poly(arylene ether), the alkenyl aromatic monomer, the acryloyl monomer, and the polymeric additive.

36. (original) The composition of Claim 1, wherein the acryloyl monomer comprises at least one acryloyl moiety having the structure



wherein R¹⁸ and R¹⁹ are each independently selected from the group consisting of hydrogen and C₁-C₁₂ alkyl, and wherein R¹⁸ and R¹⁹ may be disposed either *cis* or *trans* about the carbon-carbon double bond.

37. (original) The composition of Claim 1, wherein the acryloyl monomer comprises at least one acryloyl moiety having the structure



wherein R²⁰-R²² are each independently selected from the group consisting of hydrogen, C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, C₆-C₁₈ aryl, C₇-C₁₈ alkyl-substituted aryl, C₇-C₁₈ aryl-substituted alkyl, C₂-C₁₂ alkoxy carbonyl, C₇-C₁₈ aryloxy carbonyl, C₈-C₁₈ alkyl-substituted aryloxy carbonyl, C₈-C₁₈ aryl-substituted alkoxy carbonyl, nitrile, formyl, carboxylate, imidate, and thiocarboxylate.

38. (original) The composition of Claim 37, wherein the acryloyl monomer comprises at least two acryloyl moieties.

39. (original) The composition of Claim 1, wherein the acryloyl monomer comprises at least one acryloyl monomer selected from the group consisting of trimethylolpropane tri(meth)acrylate, 1,6-hexanediol di(meth)acrylate, ethylene glycol di(meth)acrylate, propylene glycol di(meth)acrylate, cyclohexanedimethanol di(meth)acrylate, butanediol di(meth)acrylate, diethylene glycol di(meth)acrylate, triethylene glycol di(meth)acrylate, isobornyl (meth)acrylate, methyl (meth)acrylate, and mixtures comprising at least one of the foregoing acryloyl monomers.

40. (original) The composition of Claim 1, comprising about 1 to about 50 parts by weight of the acryloyl monomer per 100 parts by weight total of the functionalized poly(arylene ether), the alkenyl aromatic monomer, the acryloyl monomer, and the polymeric additive.

41. (original) The composition of Claim 1, further comprising a curing catalyst.

42. (original) The composition of Claim 41, wherein the curing catalyst comprises at least one curing catalyst selected from the group consisting of benzoyl peroxide, dicumyl peroxide, methyl ethyl ketone peroxide, lauryl peroxide, cyclohexanone peroxide, t-butyl hydroperoxide, t-butyl benzene hydroperoxide, t-butyl peroctoate, 2,5-dimethylhexane-2,5-dihydroperoxide, 2,5-dimethyl-2,5-di(t-butylperoxy)-hex-3-yne, di-t-butylperoxide, t-butylcumyl peroxide, alpha,alpha'-bis(t-butylperoxy-m-isopropyl)benzene, 2,5-dimethyl-2,5-di(t-butylperoxy)hexane, dicumylperoxide, di(t-butylperoxy)isophthalate, t-butylperoxybenzoate, 2,2-bis(t-butylperoxy)butane, 2,2-bis(t-butylperoxy)octane, 2,5-dimethyl-2,5-di(benzoylperoxy)hexane, di(trimethylsilyl)peroxide, trimethylsilylphenyltriphenylsilyl peroxide, 2,3-dimethyl-2,3-diphenylbutane, 2,3-trimethylsilyloxy-2,3-diphenylbutane, and mixtures comprising at least one of the foregoing curing catalysts.

43. (original) The composition of Claim 1, further comprising a particulate filler.

44. (original) The composition of Claim 43, wherein the particulate filler is calcium carbonate.

45. (original) The composition of Claim 43, comprising about 5 to about 80 weight percent of the particulate filler, based on the total weight of the composition.

46. (original) The composition of Claim 1, further comprising a fibrous filler.

47. (original) The composition of Claim 46, wherein the fibrous filler is glass fibers.

48. (original) The composition of Claim 46, comprising about 2 to about 80 weight percent of the fibrous filler, based on the total weight of the composition.

49. (original) The composition of Claim 1, further comprising an additive selected from the group consisting of flame retardants, mold release agents and other lubricants, antioxidants, thermal stabilizers, ultraviolet stabilizers, pigments, dyes, colorants, anti-static agents, conductive agents, curing promoters, and combinations comprising at least one of the foregoing additives.

50. (original) The composition of Claim 1, wherein the composition after molding exhibits a shrinkage at least 10% less than the shrinkage exhibited by a corresponding composition without the polymeric additive.

51. (original) The composition of Claim 1, wherein the composition after molding in a Class A surface mold exhibits an orange peel value less than 40.

52. (currently amended) [The composition of Claim 1,] A curable composition, comprising:

a functionalized poly(arylene ether);

an alkenyl aromatic monomer;

an acryloyl monomer; and

a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein the composition after molding in a Class A surface mold exhibits an orange peel value less than 300.

53. (original) A curable composition, comprising:

about 10 to about 90 parts by weight of a functionalized poly(arylene ether);

about 10 to about 90 parts by weight of an alkenyl aromatic monomer;

about 1 to about 50 parts by weight of an acryloyl monomer; and

about 0.1 to about 30 parts by weight of a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C; and

wherein all parts by weight are based on 100 parts by weight total of the functionalized poly(arylene ether), the alkenyl aromatic monomer, the acryloyl monomer, and the polymeric additive.

54. (original) A curable composition, comprising:

about 20 to about 60 parts by weight of a methacrylate-capped poly(arylene ether);

about 20 to about 60 parts by weight of styrene;

about 5 to about 20 parts by weight of an acryloyl monomer; and

about 5 to about 20 parts by weight of a polymeric additive having a glass transition temperature less than or equal to 25°C and a Young's modulus less than or equal to 100 megapascals at 25°C;

wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 30°C; and

wherein all parts by weight are based on 100 parts by weight total of the functionalized poly(arylene ether), the alkenyl aromatic monomer, the acryloyl monomer, and the polymeric additive.

55. (original) A composition comprising the reaction products of:
- a functionalized poly(arylene ether);
 - an alkenyl aromatic monomer;
 - an acryloyl monomer; and
 - a polymeric additive having a glass transition temperature less than or equal to 100°C and a Young's modulus less than or equal to 1000 megapascals at 25°C;
- wherein the polymeric additive is soluble in the combined functionalized poly(arylene ether), alkenyl aromatic monomer, and acryloyl monomer at a temperature less than or equal to 50°C.
56. (original) An article comprising the composition of Claim 55.

57. (original) An article comprising the composition of Claim 55 and selected from the group consisting of acid bath containers, neutralization tanks, electrorefining tanks, water softener tanks, fuel tanks, filament-wound tanks, filament-wound tank linings, electrolytic cells, exhaust stacks, scrubbers, automotive exterior panels, automotive floor pans, automotive air scoops, truck bed liners, drive shafts, drive shaft couplings, tractor parts, transverse leaf springs, crankcase heaters, heat shields, railroad tank cars, hopper car covers, boat hulls, submarine hulls, boat decks, marine terminal fenders, aircraft components, propeller blades, missile components, rocket motor cases, wing sections, sucker rods, fuselage sections, wing skins, wing flairings, engine nacelles, cargo doors, aircraft stretch block and hammer forms, bridge beams, bridge deckings, stair cases, railings, walkways, pipes, ducts, fan housings, tiles, building panels, scrubbing towers, flooring, expansion joints for bridges, injectable mortars for patch and repair of cracks in structural concrete, grouting for tile, machinery rails, metal dowels, bolts, posts, electrical encapsulants, electrical panels, printed circuit boards, electrical components, wire windings, seals for electromechanical devices, battery cases, resistors, fuses, thermal cut-off devices, coatings for printed wiring boards, capacitors, transformers, electrically conductive components for antistatic applications, tennis racquets, golf club shafts, fishing rods, skis, ski poles, bicycle parts, swimming pools, swimming pool slides, hot tubs, saunas, mixers, business machine housings, trays, dishwasher parts, refrigerator parts, furniture, garage doors, gratings, protective body gear, luggage, optical waveguides, radomes, satellite dishes, signs, solar energy panels, telephone switchgear housings, transformer covers, insulation for rotating machines, commutators, core insulation, dry toner resins, bonding jigs, inspection fixtures, industrial metal forming dies, and vacuum molding tools.

58. (original) An automotive part comprising the composition of Claim 55.